

Hunter Schools Engagement Program

Riparian Zone Guided Meditation



Overview

Combining a 'sense of place' and mindfulness, students participate in a guided meditation based around a riparian zone. This activity will help students appreciate the importance of this special area for biodiversity and water quality. The meditation is followed by a lesson on the importance of riparian zones for water quality and biodiversity.

The **guided meditation** is suitable for **all ages**.

The **reflection discussion** is suitable for **Stages 3–4**.

Time

- Initial drawing exercise: 5 minutes
- Meditation: 11 minutes
- Reflection drawing exercise: 10–15 minutes
- Reflection discussion: 15 minutes

Requirements

- Internet access on a SmartBoard
- If needed, external speakers so the whole class can be immersed in the meditation
- Paper and pencils



Click or Scan

Guided Meditation
YouTube video.



Riparian activity
slideshow.



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Activity

Drawing exercise

Sitting at their desks, have students draw a picture of a river or creek. They should include what they might see on, in or next to the waterway. This only needs to be a rough sketch.

Guided meditation

Introduce the guided meditation.

Have the students clear their desks, rest their heads on their desk and close their eyes.

Run the guided meditation YouTube video.



Drawing exercise

Students can have some quiet time on their own to reflect on everything they saw in their imagination during that meditation.

They can return to their original drawing by adding images, colours and feelings. It could be a beautiful, big river with many birds and animals. It doesn't have to be perfect, it could just be using colours to represent birds, just letting their creativity flow, as a way to create an artwork to remind them of this special place.

Reflection discussion

Using the slideshow, take students on a reflection discussion about the different things they heard in the guided meditation. The following notes are provided to help you discuss these topics with your students. Suitable for Stages 3-4.

Slides

Slide 1

When the meditation started, we heard about trees. Why do you think trees are important?

Trees provide oxygen.

Habitat for birds and animals – ask the students to name some different types.

Hold the soil together: imagine if there was just bare dirt. When it rains, all the soil will flow down into the river, and the riverbank will be washed away. All the nutrients from the roots of the trees will wash away too, and the habitats for birds and animals along the riverbank will be gone, so those animals wouldn't have a place to get shelter and food.

Slide 2

Some of you might have seen a fence in the distance with cows on the other side of the fence.

Why do you think farmer has fenced cows off from this area?

Slide 3

The cows have hard hooves that tread heavily on the ground when they go down the riverbank. They trample and kill the plants, stir up the sediment, make the river muddy and, erode the soil.

What is erosion?

Erosion is when wind, water or some other force (like cows) makes soil fall away. The cows are treading heavily on the plants on the riverbank and the plants die. The hard hooves of the cows also cause mud and soil to erode or fall into the river. The riverbank becomes bare, muddy soil with no habitat for animals.

Slide 4

We can protect these areas by fencing cattle off and managing cattle access to these areas. Sometimes farmers let them into those riparian zones to eat the weeds and take them out again, so they don't have time to do too much damage.

What is a weed?

Weeds are plants that don't belong. They can take over an area quickly, making it difficult for native plants to grow.

Slide 5

Ask a student to read the poem aloud for the class.

In the meditation, we heard some birds. Which birds did you hear?

There were a couple of bird sounds you may not recognise as they are the calls of endangered birds.

What does endangered mean?

There are so few left of them that they're at risk of becoming extinct.

Slide 6

Regent honeyeater [play sound]

Regent honeyeaters are Endangered. There are about 200–400 left in the wild. Regent honeyeaters are found in the Hunter region.

Slide 7

This is an example of a regent honeyeater's habitat.

Does this look a bit like the wooded area we described in the meditation? With tall gum trees?

Slide 8

Swift parrot [play sound]

Swift parrots are Endangered birds also found in the Hunter region. There are about 2000 left in the wild.

These birds rely on gum trees for their food and home. We need to make sure we keep those trees there and not cut them down; and ensure plenty of habitat and food sources are available.

You may have heard or seen kangaroos, bottlebrush flowers and wombats. The habitats or homes of these animals need to stay diverse.

Slide 9

Lots of variety in the area will attract these animals, and lots of insects and this helps maintain biodiversity. Biodiversity is the variety of different animals, plants and all life in an area. BIO = LIFE. DIVERSITY = VARIETY.

Why do we think that's important?

Do you remember when the meditation said to "tread lightly"? Why should we walk lightly on the ground?

We want to keep plants intact because they provide habitat for birds and animals.

Why is vegetation important? It holds the soil together, but also the vegetation acts as a filter for any pollutants flowing off the land — like fertilisers, detergents, oil and sediment (dirt) — and the pollutants are absorbed by the vegetation, which helps prevent the pollutants from reaching the river.

Slide 10

Do you remember hearing about the fallen branches that you step over? Do you think they could be homes for some animals? Have you ever seen one of these in the bush?

Animals such as lizards, echidnas and small mammals could use fallen logs for their home and hide from predators.

Slide 11

Some predators could be foxes or feral cats. These are introduced species; they are not native to the area and they prey on our native animals.

Slide 12

When we were asked in the meditation "Is the water clear or murky?" Why might it have been murky?

Possibly because there had been cows in the water, stirring it up, making it muddy?

Slide 13

Or, it can look like this!

Slide 14

What about the grasses and reeds holding the riverbank together, and the river red gums?

The roots of these gums hold the soil together. The leaves that drop into the water from trees like river red gums are a food source for water bugs, fish and turtles. The trees also provide shade for these animals

Slide 15

Did you see any bugs when you turned over a stone down at the river?

There are a lot of living things in the water. Stonefly and mayfly nymphs are sensitive water bugs because they are sensitive to pollution and like to live in clear, healthy rivers. These bugs can't survive in water that is polluted.

Slide 16

The river provides a habitat for water bugs that are important for biodiversity.

Slide 17

Here are some people looking at water bugs in the river.

Slide 18

Did anyone remember a turtle mentioned in the meditation?

This is the Hunter River turtle. This turtle is a threatened species found in the Hunter River. The Manning River turtle is an endangered species found in the Manning River.

Slide 19

Animals such as turtles need healthy, clear water with lots of plants and a rocky beach to lay their eggs. You won't find them in an area without vegetation like this, and you won't find many types of water bugs in an area like this either.

Slide 20

Has anyone heard of a riparian zone before?

A riparian zone is the land next to a creek, river, wetland or dam. The riparian zone is very important; if it's healthy, it can help protect the water quality. A healthy riparian zone has lots of different types of native plants and provides a home for many different types of native animals.

Slide 21

Here's a diagram that shows a healthy riparian area.

You can see the healthy upland area (1) which includes native shrubs and trees (2) in the farmland, providing shelter for cows and farm animals, as well as habitat for wildlife, and the roots of the trees help to keep the soil healthy and held together to prevent erosion. The riparian area is protected from cows and farm animals by a fence, so they don't trample the plants and erode the soil.

On the other side of the diagram, you can see how the riverbanks have been eroded by the animals that aren't fenced in, so the riparian area of trees, plants and shrubs are being damaged by too much grazing and trampling by cows. They are also stepping into the river, causing it to get contaminated when cows poo.

Slide 22

This is a healthy riparian zone. You can see the trees upland from the riverbank, with birds and insects using the trees as their homes and a source of food.

You can see the 'undergrowth', which is the shrubs and grasses under the tall trees, where birds, reptiles, marsupials, and frogs can live.

The fallen branches from old trees can be shelter for fish, or places for animals like echidnas to hide in along the upland areas. Insects and water bugs are also food sources for other animals.

Slide 23

What can you do?

When you go to your local waterway, look at the sights and sounds.

Tread lightly, don't litter, and leave it as you found it.

If you know someone that owns a bit of land with waterways, tell them about how important plants are, and how important it is to manage cattle access to waterways.

Slide 24

If you have the opportunity, join a Landcare Group and help to plant trees next to our waterways, like the kids in this picture.

Slide 25

Plant trees next to waterways.

Finish drawing time (remaining time)

Draw what you saw, and draw yourself doing something you like when you go to the river, such as fishing, swimming, looking for yabbies, or having a picnic.

On the back of your drawing write down any other thoughts from the lesson. Such as, when you go to your special riparian place, what do you like to see? How does it make you feel when it's dirty? What do you love about the river?